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| 47382 7590 03/22/2007 CARMEN B. PATTI & ASSOCIATES, LLC ONE NORTH LASALLE STREET 44TH FLOOR CHICAGO, IL 60602 | | | EXAMINER HUYNH, CHUCK | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Art Unit: 2617.

DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 15 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding the limitation of "wherein the operator services information parameter comprises **a special handling value.**"

Nowhere in the specification does it disclose specifically what a special handling type value actually entails. Along with the remarks made by Applicant (Page 10, lines 5), Examiner has interpreted that the special handling type value is part of the operator services information parameter, which is well known in the art as a standardized parameter within an initial address message for SS7 ISUP messages.

The claims are rejected in accordance with the interpretation.

Response to Arguments

1. Applicant's arguments with respect to claims 1-9 and 12-22 have been considered but are moot in view of the new ground(s) of rejection.

Regarding the limitation of "wherein the call request comprises an integrated services digital network user part (ISUP) initial address message (IAM)," it is well known in the art that IAM is one of the seven ISUP messages. ISUP is also well known in the art to be used to determine the procedures of setting up, coordinating, and taking down trunk calls. (Refer to Newton's telecom dictionary; printout provided by examiner).

Applicant has also agreed that the operator services information parameter is a standardized parameter within an initial address message for SS7 ISUP messages.

Furthermore, in paragraph [0017] of Applicant's specification, it is disclosed that the ISUP message is used as an example to show the main feature of the application, which is the ability to perform a barge-in to allow the priority user to communicate with the target user through employment of the authorization code. This functionality can be seen in Harrison Abstract and column 6, lines 13-20 and column 7, lines 37-41).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-4, 6-9, 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison et al. (US 6418216; hereinafter Harrison) in view of Vishwanathan et al. (US 2003/0017836; hereinafter Vishwanathan) further in view of Perry (US 2002/0089938).**

Regarding claim 1, Harrison discloses an apparatus, comprising:

a switching component that performs a barge-in that allows a first user to communicate with a second user of a mobile communication device that is engaged in a pre-existing active call (Col 5, lines 48-59; Figs. 1 and 2).

Harrison discloses all the particulars of the claim except for a mobile switching component.

However, Vishwanathan does disclose a mobile switching component (MSC) within an analogous art (Fig. 1, 2).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Vishwanathan's disclosure to expand the system to a mobile network and provide communication for mobile users.

Art Unit: 2617

Harrison discloses the mobile switching component receives a call request (Col 5, lines 48-50) with an authorization code from the first user (Col 6, lines 15-20; Col 7, lines 39-41);

however, Harrison in view of Vishwanathan does not distinctly disclose the limitations of:

wherein the call request comprises an integrated services digital network user part (ISUP) initial address message (IAM);

wherein the initial address message comprises an operator service information parameter;

wherein the operator services information parameter comprises an indicator for a special handling type;

wherein the mobile switching component employs the special handling type to perform the barge-in.

However, Perry does disclose the limitations of

wherein the call request comprises an integrated services digital network user part (ISUP) initial address message (IAM) (Page 4, [0038]; "ATTACH_REQ(BARGE-IN, TERM)" message in [0039]);

wherein the initial address message comprises an operator service information parameter is well known in the art of SS7 ISUP messages as conceded by Applicant;

wherein the operator services information parameter comprises a special handling type value (the DN "1159" Page 4, [0038]);

wherein the mobile switching component employs the special handling type to perform the barge-in (Page 4, [0038] –[0039]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Perry's disclosure to provide barge-in connectivity.

Regarding claims 2, Harrison discloses the apparatus of claim 1, wherein the mobile switching component communicates one or more indications (waiting tones) of the barge-in to the second user of the mobile communication device (Col 5, lines 48-59).

Regarding claim 3, Harrison discloses the apparatus of claim 2, wherein the one or more indications comprise one or more in-band indications of the barge-in, wherein the mobile switching component cooperates with the mobile communication device to communicate the one or more in-band indications (voice channel or audio waiting tone) of the barge-in to the second user of the mobile communication device (Col 8, lines 1-6).

Regarding claim 4, Harrison discloses the apparatus of claim 2, wherein the one or more indications comprise one or more out-of-band indications of the barge-in, wherein the mobile switching component cooperates with the mobile communication device to communicate the one or more out-of- band indications (data

Art Unit: 2617

channel/messages) of the barge-in to the second user of the mobile communication device (Col 11, lines 24-36).

Regarding claim 6, Harrison discloses the apparatus of claim 1, wherein the preexisting active call comprises a preexisting active call between the mobile communication device and one or more additional communication devices (Col 5, lines 48-59);

wherein the mobile switching component performs the barge-in to allow the first user to participate in the preexisting active call between the mobile communication device and the one or more additional communication devices (conference call) (Col 8, lines 1-6).

Regarding claim 7, Harrison discloses the apparatus of claim 6, wherein the mobile switching component communicates one or more indications of the barge-in to the one or more additional communication devices (Col 8, lines 1-6).

Regarding claim 8, Harrison discloses the apparatus of claim 6, wherein the mobile switching component communicates one or more indications of the barge-in to the mobile communication device and the one or more additional communication devices (Col 8, lines 1-6).

Art Unit: 2617

Regarding claims 9, Harrison discloses the apparatus of claim 6, wherein the mobile switching component places one or more of the one or more additional communication devices on hold for a duration of the barge-in (Col 6, lines 36-37; Col 8, lines 9-12).

Regarding claim 12, Harrison discloses the apparatus of claim 1, wherein the mobile switching component employs one or more priority user designations from the second user to perform a determination that the first user is a priority user (this is done with a password) (if the caller knows the password, then the caller is of priority) (Col 7, lines 56-67);

wherein upon the determination that the first user is a priority user, the mobile switching component performs the barge-in to allow the priority user to communicate with the second user (Col 7, lines 56 – Col 8, lines 1-6).

Regarding claim 13, Harrison discloses the apparatus of claim 1, wherein the mobile switching component receives a request to perform the barge-in from an operator that acts on behalf of the first user (Col 1, lines 6-35);

wherein the mobile switching component employs the request to perform the barge-in to allow the first user to communicate with the second user (Col 7, lines 65 – Col 8, lines 1-6).

Regarding claim 14, Vishwanathan discloses the apparatus of claim 1, wherein the mobile switching component (Fig. 1) comprises:

a home mobile switching center for the mobile communication device, wherein the home mobile switching center receives a request for the barge-in (Page 1, [0005]; Page 6, [0071]), the apparatus further comprising:

a visited mobile switching center for the mobile communication device (Page 1, [0005]);

wherein the home mobile switching center identifies the visited mobile switching center through employment of the home location register (Fig. 1);

wherein the home mobile switching center and the visited mobile switching center cooperate to perform the barge-in to allow the first user to participate in the preexisting active call with the second user of the mobile communication device (Page 6, [0071]).

Regarding claim 15, Harrison discloses a method, comprising the step of:
receiving a call request from a first user (Col 5, lines 48-50); and
performing, by a mobile switching component, a barge-in through employment of the special handling type value (the application of barge-in service Col 5, line 53) that allows a first user to communicate with a second user that is engaged in a preexisting active call (Col 5, lines 47-59).

Art Unit: 2617

Harrison discloses all the particulars of the claim except the second user being a mobile device.

However, Vishwanathan disclose a wireless network with mobile stations using a barge-in function for communication (Page 6, [0071]; Fig. 1; Fig. 7, no. 1070; Page 1, [0005], [0009]; Page 10, [0116]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Vishwanathan's mobile network with the PSTN to establish communication and connectivity (Vishwanathan: Fig. 7, no. 1070; Page 1, [0005], [0009]; Page 10, [0116]).

However, Harrison in view of Vishwanathan does not distinctly disclose the limitations of:

wherein the call request comprises an integrated services digital network user part (ISUP) initial address message (IAM);

wherein the initial address message comprises an authorization code from the first user;

wherein the initial address message comprises an operator service information parameter;

wherein the operator services information parameter comprises an indicator for a special handling type value.

However, Perry does disclose the limitations of

Art Unit: 2617

wherein the call request comprises an integrated services digital network user part (ISUP) initial address message (IAM) (Page 4, [0038]; "ATTACH_REQ(BARGE-IN, TERM)" message in [0039]);

wherein the initial address message comprises an authorization code from the first user (barge-in access number [0038]);

wherein the initial address message comprises an operator service information parameter is well known in the art of SS7 ISUP messages, as conceded by Applicant;

wherein the operator services information parameter comprises a special handling type value (the DN "1159" Page 4, [0038]);

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Perry's disclosure to provide barge-in connectivity.

Regarding claim 16, Harrison discloses the method of claim 15, wherein the step of performing the barge-in that allows the first user to communicate with the second user of the mobile communication device that is engaged in the preexisting active call comprises the steps of:

determining that the first user is a priority user (if the caller knows the password, then the caller is of priority) (Col 7, lines 56-67); and

bridging a call leg of the priority user with a call leg of the second user (Abstract; Col 6, lines 51-60).

Regarding claim 17, Harrison discloses the method of claim 16, further comprising the step of:

wherein the step of bridging the call leg of the priority user with the call leg of the second user (Col 6, lines 51-60) comprises the step of:

cooperating with a switch to bridge the call leg of the priority user with the call leg of the second user (Col 7, lines 65 – Col 8, lines 1-12).

Harrison discloses all the particulars of the claim except a switch being a visited mobile switching center; and

identifying a visited mobile switching center that is synchronized with the mobile communication device through employment of a home location register;

However, Vishwanathan dose disclose a switch being a visited mobile switching center (Fig. 1) and identifying a visited mobile switching center that is synchronized with the mobile communication device through employment of a home location register (Fig. 1);

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Vishwanathan's disclosure to expand the system to a mobile network and provide communication for mobile users.

Regarding claim 18, Harrison discloses the method of claim 15, further comprising the step of:

communicating one or more indications of the barge-in to the mobile communication device (Col 5, lines 48-59).

Regarding claim 19, Harrison discloses the method of claim 15, wherein the preexisting active call comprises a preexisting active call between the mobile communication device and one or more additional communication devices, the method further comprising the step of:

placing one or more of the one or more additional communication devices on hold for a duration of the barge-in (Col 6, lines 36-37; Col 8, lines 9-12).

Regarding claim 20, Harrison discloses an article comprising:

one or more computer-readable signal-bearing media (data storage within the telephone system apparatus to store data for use in verification process Col 1, lines 44+, Col 7, lines 56+); and

means in one or more media for receiving a call request from a first user (Col 5, lines 48-50); and

means in the one or more media for performing, by a mobile switching component, a barge-in through employment of the special handling type (the application

Art Unit: 2617

of barge-in service Col 5, line 53) to allow the first user to participate in a preexisting active call with a second user of a mobile communication device (Col 5, lines 47-59).

Harrison discloses all the particulars of the claim except the second user being a mobile device.

However, Vishwanathan disclose a wireless network with mobile stations using a barge-in function for communication (Page 6, [0071]; Fig. 1; Fig. 7, no. 1070; Page 1, [0005], [0009]; Page 10, [0116]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Vishwanathan's mobile network with the PSTN to establish communication and connectivity (Vishwanathan: Fig. 7, no. 1070; Page 1, [0005], [0009]; Page 10, [0116]).

However, Harrison in view of Vishwanathan does not distinctly disclose the limitations of:

wherein the call request comprises an integrated services digital network user part (ISUP) initial address message (IAM);

wherein the initial address message comprises an authorization code from the first user;

wherein the initial address message comprises an operator service information parameter;

wherein the operator services information parameter comprises an indicator for a special handling type.

However, Perry does disclose the limitations of
wherein the call request comprises an integrated services digital network user part (ISUP) initial address message (IAM) (Page 4, [0038]; "ATTACH_REQ(BARGE-IN, TERM)" message in [0039]);

wherein the initial address message comprises an authorization code from the first user (barge-in access number [0038]);

wherein the initial address message comprises an operator service information parameter is well known in the art of SS7 ISUP messages, as conceded by Applicant;

wherein the operator services information parameter comprises a special handling type value (the DN "1159" Page 4, [0038]);

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Perry's disclosure to provide barge-in connectivity.

Regarding claim 21, Harrison discloses the method of claim 15, wherein the step of performing the barge-in through employment of the mobile switching component that allows the first user to communicate with the second user of the mobile communication device that is engaged in the preexisting active call comprises the steps of:

determining a mobile identification number of the mobile communication device (Col 1, lines 37-67);

requesting from a home location register a location of and/or route to the mobile communication device through employment of the mobile identification number (Col 1, lines 37-67; Col 2, lines 19-32);

bridging a call leg of the priority user with a call leg of the second user (Col 6, lines 55+);

sending a confirmation message of the bridging of the call legs to the priority user (Col 8, lines 1-6; Col 9, lines 18+).

Harrison discloses all the particulars of the claim except for the limitations of receiving a temporary local directory number from the home location register (Page 9, [0115]).

However, Vishwanathan does disclose receiving a temporary local directory number (TLDN) from the home location register (Page 9, [0115]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Vishwanathan's mobile network with the PSTN to establish communication and connectivity (Vishwanathan: Fig. 7, no. 1070; Page 1, [0005], [0009]; Page 10, [0116]).

Regarding claim 22, Harrison discloses the method of claim 21, wherein the step of bridging the call leg of the priority user with the call leg of the second user comprises the step of:

forwarding the confirmation of the call request to the priority user (Col 9, lines 18+);

wherein the step of sending the confirmation message of the bridging of the call legs to the priority user comprises the steps of:

receiving a confirmation of the bridging of the call leg of the priority user with the call leg of the second user (Col 8, lines 5+);

forwarding the confirmation of the bridging to the priority user (Col 9, lines 18+).

Harrison does disclose the limitation of receiving a confirmation of the call request from another switch within the system (Col 6, lines 55+; Col 9, lines 18+), but not from a visited mobile switching center; furthermore, Harrison is unclear about the limitation of sending a call request to a visited mobile switching center, wherein the call request comprises the temporary local directory number, wherein the visited mobile switching center performs the bridging of the call leg of the priority user with the call leg of the second user.

However, Vishwanathan discloses roaming services incorporating mobile switching centers (home MSC and serving/visiting MSC Page 1, [0005], [0012]) and furthermore, discloses sending a call request to a visited mobile switching center, wherein the call request comprises the temporary local directory number, wherein the visited mobile switching center performs the bridging of the call leg of the priority user with the call leg of the second user (Page 9, [0113] – [0115]). Therefore, Vishwanathan is combined to disclose a mobile switching component (MSC), which is used to provide group/conference calls among mobile communication devices, as well as having barge-in service capability (Page 4, [0050]+; Fig. 7; Page 6, [0071]; Page 9, [0115]). Even though Harrison's system is used within the PSTN (Harrison: Fig. 2), and it would have

Art Unit: 2617

been obvious to one ordinarily skilled in the art at the time of invention to incorporate Vishwanathan's mobile/roaming network with the PSTN to establish communication and connectivity (Vishwanathan: Fig. 7, no. 1070; Page 1, [0005], [0009]; Page 10, [0116]).

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison in view of in view of Vishwanathan further in view of Perry in further view of Bales et al (US 5590127; hereinafter Bales).

Regarding claim 5, Harrison discloses the apparatus of claim 2, wherein the one or more indications comprise an entry indication and an exit indication, wherein the mobile switching component cooperates with the mobile communication device to communicate the entry indication to the second user upon a start of the barge-in (Col 8, lines 1-6).

Even though Harrison discloses all the particulars of the claim, Harrison in view of in view of Vishwanathan further in view of Perry does not disclose wherein the mobile switching component cooperates with the mobile communication device to communicate the exit indication to the second user of the mobile communication device upon an end of the barge-in.

However, Bales does disclose sending a notification message to users, informing of the end of call conference. At the start of the barge-in the users were in a conference

Art Unit: 2617

call state and when a particular terminal is not in the conference state, hence the end of the barge-in, other users are notified (Col 20, lines 48-65).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Bales' disclosure to provide better of conference communication state and to keep users informed of the communication status.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Newton's Telecom Dictionary (printout previously provided)

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2617


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Huynh whose telephone number is 571-272-7866. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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